# GOLDEN SUNLIGHT MINE, INC. PARTIAL PIT BACKFILL SUPPLEMENTAL EIS AND 5B OPTIMIZATION

#### PURPOSE OF THE BRIEFING DOCUMENT:

Golden Sunlight Mine, Inc. (GSM) is a conventional truck and shovel mine which processes gold-bearing ore using facilities located on public and private lands near Whitehall, Mont. GSM has conducted mining and mineral processing activities under Operating Permit No. 00065 since 1975.

The BLM and Montana Department of Environmental Quality (DEQ) issued a decision in 1998 for expansion of the Golden Sunlight Mine. The associated environmental impact statement (EIS) analyzed a partial pit backfill alternative which was dismissed after DEQ concluded, in part, that it would not be economically feasible. Environmental groups filed suit against DEQ claiming that the partial pit backfill alternative was required by the Montana Metal Mine Reclamation Act.

A 2002 Montana state court decision required that GSM submit a partial pit backfill plan. GSM submitted this plan to the agencies December 1, 2003. The Montana DEQ and BLM completed a supplemental EIS which fully evaluated the environmental impacts associated with partially backfilling the GSM pit, and issued separate but essentially identical decisions in 2007.

### **ISSUES:**

GSM mines approximately ten million tons of rock per year, of which 2.5 million tons are ore; the remainder is waste rock. Approximately 300 million tons of wastes have been placed in waste rock dumps. The ore is milled and processed using a vat cyanide process, and tailings are pumped to a lined impoundment. An earlier impoundment has been reclaimed.

In late 2007 GSM applied for a minor revision/plan amendment to deepen the pit, called the 5B Optimization. Although surface disturbance associated with this proposal is outside the existing disturbance proposal area, it is within the scope of previous NEPA/MEPA documents and generally improves environmental performance.

Because the rock at GSM has high potential for "acid rock drainage," effective reclamation is crucial. Extensive research and monitoring of several reclaimed waste dumps and highwalls has helped the GSM and agencies determine which reclamation practices are most effective. Surface water management is an important part of a successful reclamation plan. Together managing mine dumps and surface water practices are aimed at protecting water quality below the mine site. Long-term water treatment is an integral part of the mine plan. GSM has posted a total bond of more than \$50 million to cover reclamation costs.

## MAIN DECISION OR MESSAGE:

The BLM and DEQ completed a supplemental EIS which fully evaluated the impacts of the proposed partial pit backfill plan. All backfill alternatives would result in ground and surface water quality degradation/violations. The selected alternative was the Underground Sump Alternative with Additional Visual Mitigation, as this was the most protective of ground and surface waters. After being collected in the sump retained from GSM's underground operations, mine-impacted waters will be pumped and treated. Because of state court timing requirements, the DEQ and BLM did not issue a joint decision as is the normal practice. DEQ's decision predated the BLM's, though they are essentially identical. The plaintiffs in the case returned to state court in late 2007 because the agencies did not select the pit backfill alternative.

# **BUREAU PERSPECTIVE:**

Public interest in the mine is high. Golden Sunlight employs more than 150 people and is an important source of revenue for Jefferson County. More than 200 people who support the mine attended an SEIS scoping meeting. In 2005 the mine produced 81,000 ounces of gold.

#### **CONTACTS**:

David Williams, Geologist, (406) 533-7655; or Joan Gabelman, Geologist, (406) 533-7623